

# MODIS SCIENCE DATA SUPPORT TEAM PRESENTATION

October 8, 1993

## AGENDA

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## **ACTION ITEMS**

<b>No.</b>	<b>Due Date</b>	<b>Item</b>
1	09/20/93	[Al Fleig, Paul Hubanks, Jim Storey] Prepare response to "MODIS pointing knowledge" for Dave Diner/Scientific Working group AM1 Platform (SWAMP). STATUS: Open. (Assigned 09/03/93)
2.	09/30/93	[Al Fleig] Develop meta-documentation concept for ATBDs. STATUS: Open. (Assigned 09/03/93)
3.	10/08/93	[Al Fleig] Speak to Steve Unger on simulation data. Develop an approach for a plan for simulated test data. STATUS: Open. (Assigned 07/23/93)

# **MODIS Airborne Simulator (MAS) Status**

*Paul A. Hubanks*

*Progress through 07 October 1993*

1. NASA Tech Memo: MAS Data User's Guide, Completed.
2. NASA Tech Memo: MODIS Earth Location Error Report, Completed.
3. HDF 3.3 Release 1 acquired, compiled, installed on LTP/INDIGO.
  - Problem compiling software using HDF libraries on LTP/IRIS2 computer, software will compile on LTP/INDIGO (contacted Shahin)
4. SCAR-A Processing Status (Clock offset problem encountered)
5. SCAR data distributed (28July93 flight):
  - Michel Verstraete (Joint Research Center, Italy)
  - Janet Chen (Dorothy Hall)
  - Jean-Claude Roger (Chris Justice)
6. Request for ASTEX data:
  - David Simas (Dr. James Coakley, U. of Oregon)
7. Interacted with Sue on MAS Processing Software Version Control.
8. MAS Processing Status placed on public FTP site (referred to in Data Users Guide).

## **MODIS Geolocation Status**

**Jim Storey**

**October 8, 1993**

### **MODIS Input to SWAMP Report**

I am in the process of assembling a first draft of the MODIS input to the Report of the Image Navigation Working Group to the Science Working Group of the AM Project (SWAMP). This report will present the geolocation requirements of the ASTER, MISR, and MODIS instrument teams and identify platform-wide issues regarding the current spacecraft position, pointing, and stability specifications. I have collected raw material from various existing documents and met with Chris Justice to get MODLAND input. I also hope to meet with John Barker before next Tuesday when the draft is due.

### **PGS Toolkit Specification Review**

I provided written comments on the latest version of the PGS Toolkit Specification to Carl Solomon for discussion at the 10/6/93 meeting with the ECS developers. I also sent an electronic copy via e-mail to Tom Atwater at Carl's request. Most of my comments were directly related to geolocation issues. Overall this version of the Toolkit Specification is a major improvement over the previous one.

## MODIS Land Prototype

Ruiming Chen  
(301) 982-3754

Work through 10/07/93

Contemporary MODIS land prototyping efforts are on MOD14 (Global Fire Product), MOD10 (Snow Cover Product), MOD09 Parameter #3669 (Bi-Directional Reflectance) and MOD12 (Land Cover Product). The prototype products are highlighted in the attached dependency diagrams.

### 1. Global Fire Prototype

I reviewed a paper from EDC "On the Processing Techniques for Global Land 1-km AVHRR Data" by Jeffery C. Eidenshink *et. al.* It covered the techniques for orbit stitching, geometric rectification, radiometric rectification, radiometric calibration and atmospheric correction. Some of the methods may be applied to the global fire composite. Ed Masuoka has requested the associated software package from EDC.

Upon Dr. Chris Justice's request, six orbits of AVHRR data were processed, covering most continents of the globe. They are:

- a. Orbit 1: Alaska, North Pole Area
- b. Orbit 112: Europe, Mid to Western Asia
- c. Orbit 113: Eastern Africa, Europe
- d. Orbit 15: North-Eastern Asia, Mid to Eastern Australia
- e. Orbit 20: Western Africa, Western Europe
- f. Orbit 23: Eastern North America, Western South America

Following processing via our prototype, the result fire product images and the associated visible bands were sent to Jackie Kendall.

### 2. Snow Cover Prototype

Ed Masuoka will discuss the issues in producing the weekly snow cover composite with Dr. Dorothy Hall. The EDC techniques for processing the land 1-km AVHRR data may also be applicable to the snow cover composite.

### 3. Land Cover Test Sites Prototype

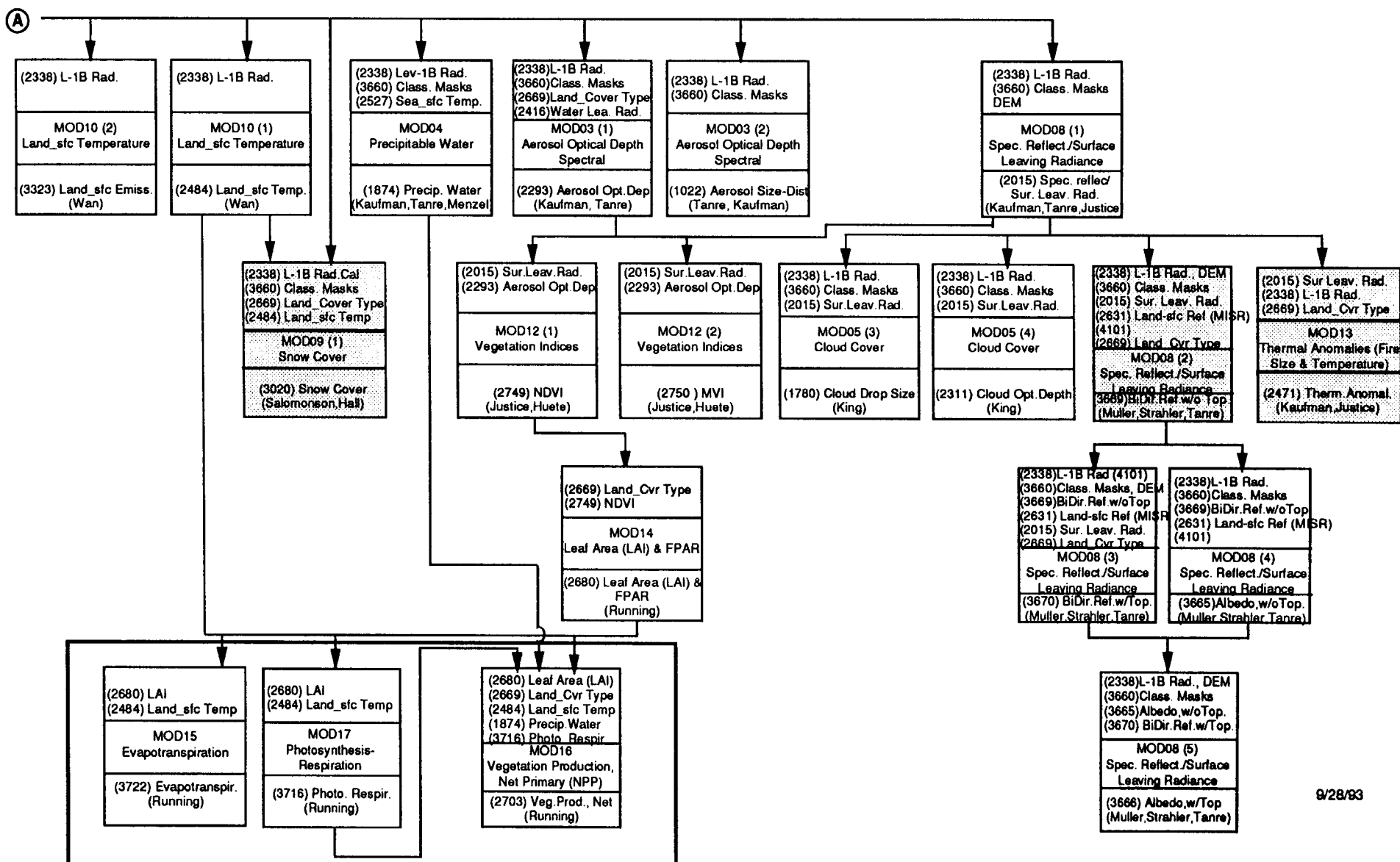
A tape of MSS data on the Plumas National Forest Area was received from Boston University. The data will be used together with the TM and AVHRR bi-weekly composite data in prototyping the Land Cover Test Sites.

### 4. BRDF Product

I received a set of field measurement BRDF data from JPL. The data are in conjunction with the previous MISR simulation data I received from JPL. I sent the data sets to Dr. Xiaowen Li at Boston University.

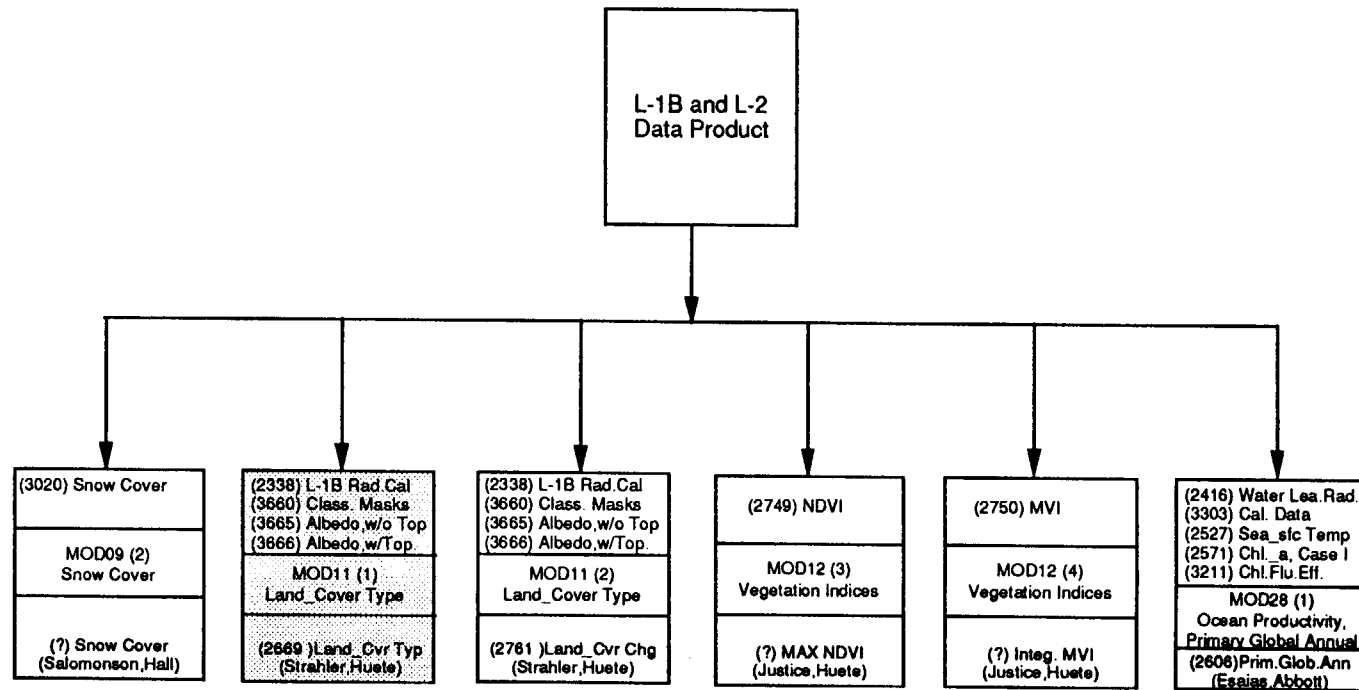
# MODIS Level 2 Atmosphere and Land Data Products (II) (DRAFT)

Note: (1) Parameters 2527 and 2416 are Oceans Data Products  
 (2) Parameter 2669 is Level 3 Data Product  
 (3) Parameter 4101 is from ?



9/28/93

## MODIS Level 3 Data Products (DRAFT)



### Legend

Input Data (Para. No.) Parameter
Prod. No. (The nth Para.) Prod. Name
Output Data (Para. No.) Parameter (Investigator)



# MODIS SDST Meeting Calendar

## October 1993

Monday	Tuesday	Wednesday	Thursday	Friday
<div>Mtg. A: Masuoka, Fleig, Carpenter Mtg. B: Masuoka, Fleig, Barker</div>		<div>MODIS CDR, Goleta, CA Dec. 7-10, 1993</div>		8:30a:Science Team, B8, Auditorium
				1
2:30-3:30p: A 4-5p: B	3p: PGS Toolkit, B22, Rm166B	2P: PGS Toolkit, B22, Rm271	3-4p: Tech Team	10a: SDST, B22, Rm G95
4	5	6	7	8
Holiday			3-4p: Tech Team	10a: SDST, B22, Rm G95
11	12	13	14	15
2:30-3:30p: A 4-5p: B			3-4p: Tech Team	10a: SDST, B22, Rm G95
18	19	20	21	22
2:30-3:30p: A 4-5p: B			3-4p: Tech Team	10a: SDST, B22, Rm G95
25	26	27	28	29

## MODIS SDST Meeting Calendar November 1993

[illegible]

## MODIS SDST Document Schedule

Document	Status	Estimated Completion	Responsible Individuals
ATBD meta-documentation	outline		Al
Configuration Management Plan	draft	Nov	Carl
Level 1A Preliminary Design Report			Tom, Jim, John
Level 1A Software Baseline Requirements	completed		Lloyd, Tom, Carl, Jim
Level 1B Requirements Report			J. Barker, Tom, Joann Harnden
Level 2 Shell Requirements Report	draft	Oct 22	J.J., John C.
MAS Level 1B Data Processing Guide	draft	Oct 29	Paul Hubanks
MAS Level 1B Data User's Guide	draft	science mtg.	Paul Hubanks
MODIS Earth Location Error Report	completed		Al, Jim, Paul
Operations Concept	revision		John, Carl, J.J., Jim, Tom
Prototyping Plan	outline submitted		Ed, Phil
Quality Assurance Plan	draft		Sue
Science Computing Facility Plan	completed		Ed Masuoka
Software and Data Management Plan	completed		Carl, Ed, Al, Lloyd
Software Guidelines/Programming Standards			Carl, Tom, John
Software Test Plan			Sue, Phil